

ROUTES TO COMPETENCE IN THE QUARRYING INDUSTRY

QPA Guidance on Practical Methods to Gain and Prove Personal Competence

As a QUARRY MANAGER, what qualifications do I need?

Many potential Quarry Managers gain their basic qualifications via the University of Derby Diploma in Quarry/Asphalt Technology. This course is designed to cover most of the disciplines required in the day-to-day management of a quarry.

In strictly legal terms no 'qualifications' as such are required to be a quarry manager. However, **Regulation 9** of The Quarries Regulations 1999 states "The operator shall ensure that **no person** undertakes any work at the quarry unless that person is either **competent** to do that work or he does so under the instruction and supervision of some other person who is competent to give instruction in and to supervise the doing of that work for the purposes of training him". Furthermore the **Operator** must be able to demonstrate such competence.

The extractive and mineral processing industry set the standards of competence for Quarry Managers to address the particular **technical responsibilities in relation to health, safety and the environment** that quarry managers are required to carry out and manage under the current legislation, regulations and consents and developed a specific National Vocational Qualification to cover these.

The recognised NVQ for Quarry Management is **Health, Safety & Environmental Management in the Extractive & Minerals Processing Industries [SHE]** available at **Levels 3, 4 or 5**.

NVQs are work-based qualifications which require individuals to demonstrate on-the-job performance and the ability to apply the appropriate knowledge and understanding.

All operations defined as quarries under the Quarries Regulations 1999 must be managed by an **Appointed 8.1c Quarry Manager** and it is recommended that they should attain the **Level 4 Health, Safety & Environmental Management in the Extractive & Minerals Processing Industries**. However, depending on the complexity, reflecting the regulatory body definitions, for an operation with simple processes and low output levels, a **Level 3 NVQ Health, Safety & Environmental Management in the Extractive & Minerals Processing Industries** may be deemed appropriate.

Similar requirements for competence apply to the Quarries Regulation 1999 **8.1d Appointee**.

In order to demonstrate that a Quarry Manager is maintaining a level of continuous development, and hence demonstrate **ongoing** competence (under the Quarries Regulation 1999), a continuous record of professional development (CPD) must be kept up to date. This might include, for example, attendance at some of the many quarrying courses run by EPIC and/or attendance at courses and meetings run by the Institute of Quarrying.

In addition to the above the Operator of the quarry must have sufficient understanding to assess the level of competence to make appointments in line with Regulation 8.

Are there any training courses which will help me achieve my NVQ?

The route to achievement of a Level 3, 4 or 5 NVQ will depend on an individual's particular start point; existing qualifications; training; work experience; specific job responsibilities, etc. Refer to the diagrams on the following pages.

NVQ Level Descriptors

NVQ levels are determined by the level of personal responsibility and technical complexity of the functions to be performed. The following table shows the Regulatory Body definition of Levels 3, 4 and 5.

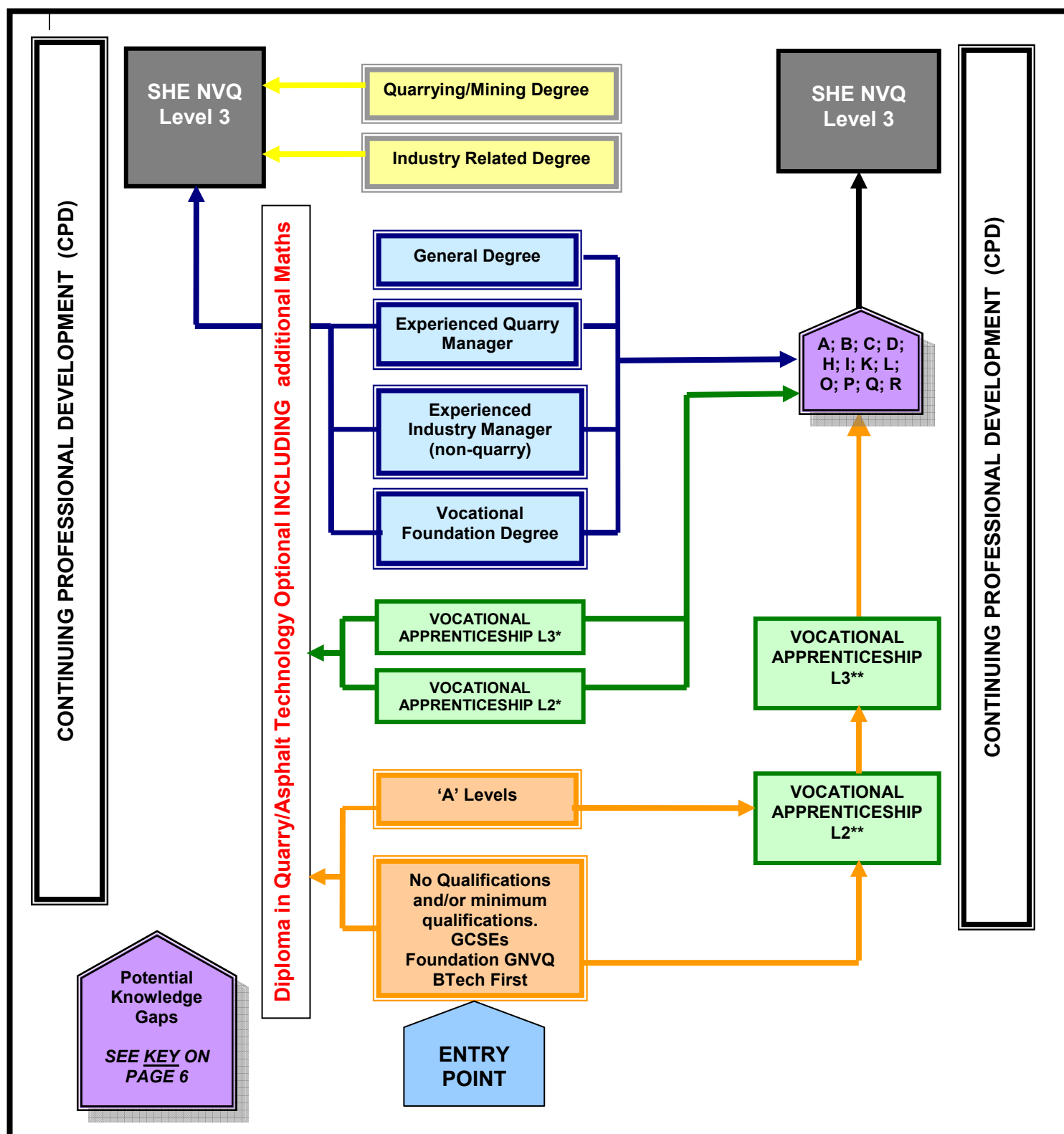
NVQ LEVEL DESCRIPTORS (REGULATORY BODY DEFINITIONS)	
Competence which involves the application of a significant range of fundamental principles across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibilities for the work of others and for the allocation of substantial resources feature strongly, as do personal accountabilities for analysis and diagnosis, design, planning, execution and evaluation.	LEVEL 5
Competence which involves the application of knowledge in a broad range of complex technical or professional work activities, performed in a wide variety of contexts and with a substantial degree of personal responsibility and or autonomy. Responsibility for the work of others and the allocation of resources is often present.	LEVEL 4
Competence which involves the application of knowledge in a broad range of varied work activities, performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy and control or guidance of others is often required.	LEVEL 3

Source: NVQ Criteria and Guidance

'Progression Routes' Flow Charts

The following three pages chart the progression routes to 'SHE' NVQ Levels 3, 4, and 5, respectively.

PROGRESSION ROUTES to 'SHE' NVQ LEVEL 3* FROM DIFFERENT ENTRY POINTS
 Health, Safety & Environmental Management in Extractive & Minerals Processing Industries [SHE]

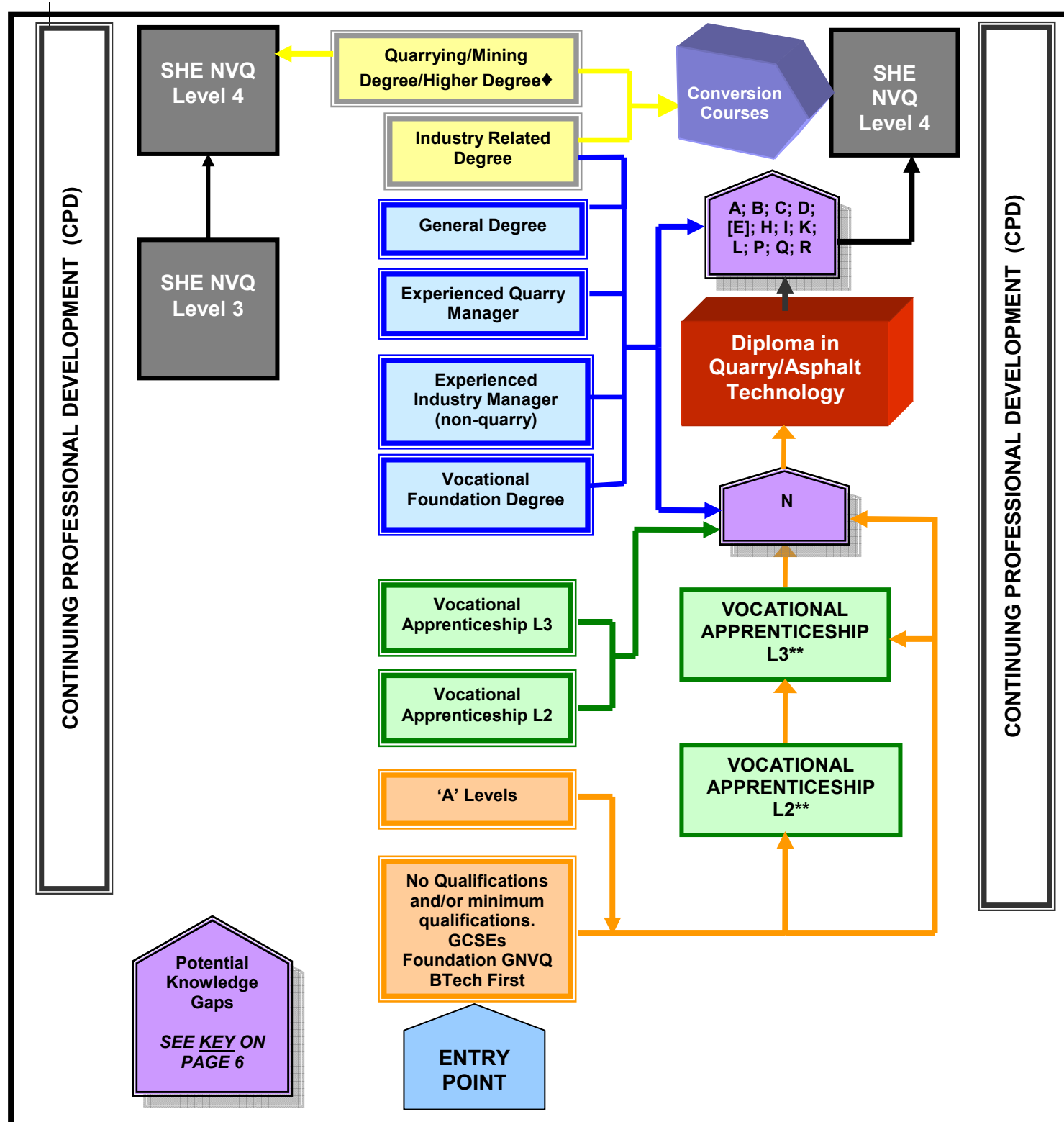


* See Page 2 for information on NVQ Level descriptors

** Vocational Apprenticeship: A government approved specific training programme which may be eligible for funding

As with any starting point there are always options but it is the responsibility of the Operator in conjunction with the candidate to adopt the most appropriate route based on the individual's past qualifications and experience, hence the left and right options from the central starting column above.

PROGRESSION ROUTES to 'SHE' NVQ LEVEL 4* FROM DIFFERENT ENTRY POINTS
 Health, Safety & Environmental Management in Extractive & Minerals Processing Industries [SHE]



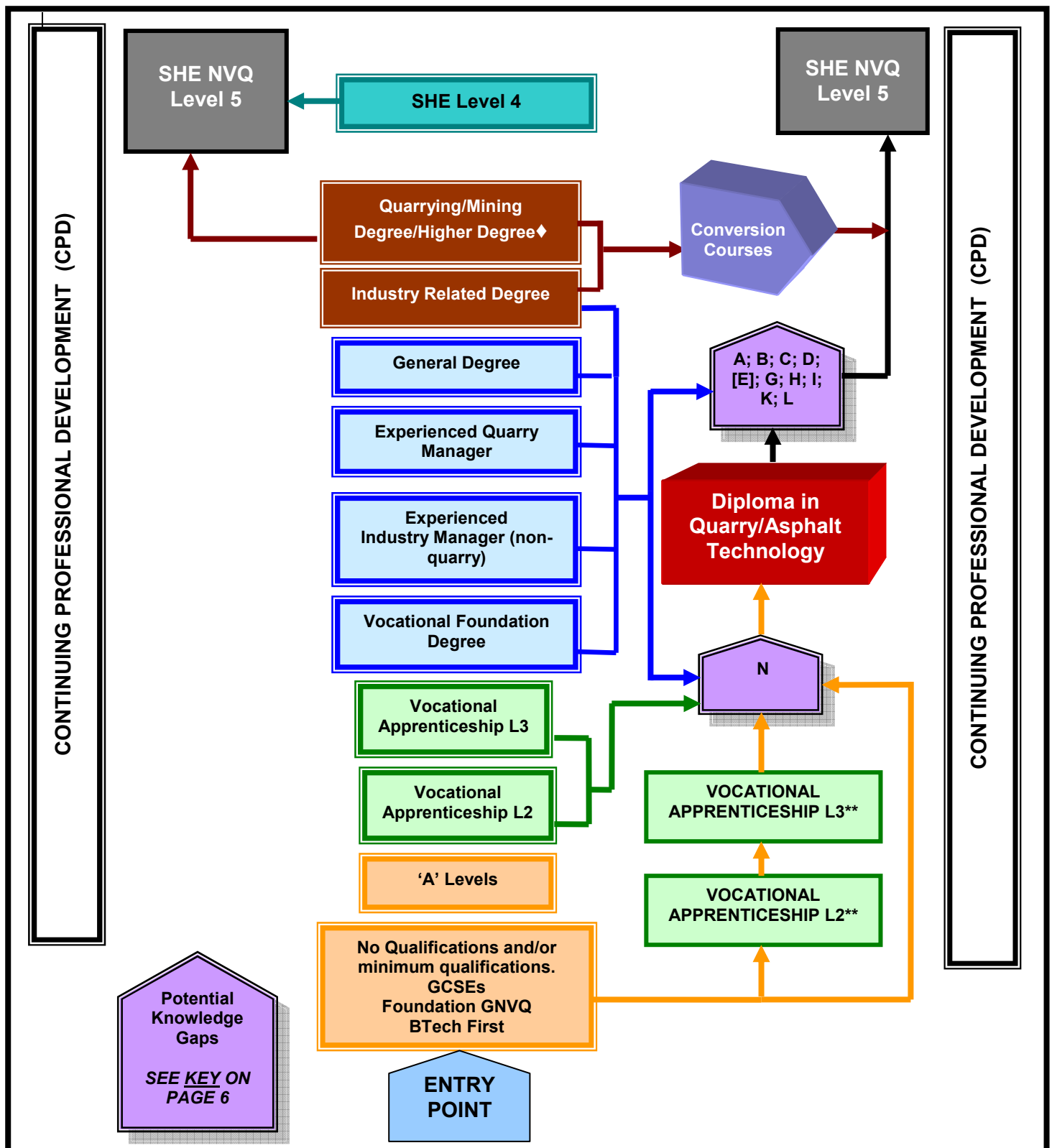
* See Page 2 for information on NVQ Level descriptors

** Vocational Apprenticeship: A government approved specific training programme which may be eligible for funding

♦ Higher Degree refers to MSc Quarry Management available from Camborne School of Mines - September 2008.

As with any starting point there are always options but it is the responsibility of the Operator in conjunction with the candidate to adopt the most appropriate route based on the individual's past qualifications and experience, hence the left and right options from the central starting column above.

PROGRESSION ROUTES to 'SHE' NVQ LEVEL 5* FROM DIFFERENT ENTRY POINTS
 Health, Safety & Environmental Management in Extractive & Minerals Processing Industries [SHE]



* See Page 2 for information on NVQ Level descriptors

** Vocational Apprenticeship: A government approved specific training programme which may be eligible for funding

♦ Higher Degree refers to MSc Quarry Management available from Camborne School of Mines - September 2008.

As with any starting point there are always options but it is the responsibility of the Operator in conjunction with the candidate to adopt the most appropriate route based on the individual's past qualifications and experience, hence the left and right options from the central starting column above.

What additional training might be needed when moving from one type of operational site to another type of operation? *This can only be determined on an individual basis.*

It is the responsibility of the **Operator**, by reviewing the individual Manager's previous record of training and qualifications, including the context in which any NVQ/SVQ has been achieved, to ascertain the individual's current knowledge gaps and to agree an appropriate CPD programme to address these gaps.

The following are appropriate training courses which may help bridge identified knowledge gaps to aid achievement of SHE NVQ Levels 3, 4 or 5.

COURSE TITLE		Level 3	Level 4	Level 5
A	Understanding the Quarries Regs.			
B	Supervising Safety (for Level 3) IOSH Managing Safely (for Levels 4 & 5)			
C	Site Environmental Management for Supervisors (for Level 3) IEMA Environmental Management (for Levels 4 & 5)			
D	Risk Assessment: General; Quarries; Processing Plants			
E	Explosive Supervisor (EPIC – 4 Modules)	Only for blasting quarries		
F	NEBS (National Examination Board) of Management Certificate, or equivalent (Level 3) <i>Ditto above</i> , but Management Diploma, or equivalent (Levels 4 & 5)			
G	Finance for Non-Financial Managers			
H	Managing Confined Spaces			
I	Managing Working at Height			
J	Computer Literacy			
K	Communication Skills			
L	Geotechnical Training: Operation and Inspection of Excavations, Tiers and Stockpiles for Quarry Supervisors (for Level 3) <i>Ditto above</i> , but for Quarry Managers (for Levels 4) Geotechnical Training: Procedures for the Design, Safe Working and Inspection of Excavations, Tiers and Stockpiles (for Level 5)			
M	Instructional Techniques			
N	Applied Maths Knowledge (if not A Level standard, or equivalent – algebra and trigonometry)			
O	Quarry Safety Inspections			
P	COSHH (Control of Substances Hazardous to Health)			
Q	PUWER (Provision and Use of Work Equipment Regulations)			
R	Effective Safety Committees			

KEY		
NOT SPECIFIED	DESIRABLE	RECOMMENDED

The above table provides guidance and must not be taken as an exhaustive list of training requirements.

NB: *It is recognised that in some cases there are equivalent courses which may be acceptable alternatives.*